Incoming C0150005 ok

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Date: 1/18/2007 9:56:23 AM
Subject: Bear Canyon PHC Addendum

This is a start on the comments, not a full set.

(See attached file: PHC Addendum 2.doc)

CC: Dale Harber <dharber@fs.fed.us>

These are not a complete set of comments. More will follow.

Forest Service Comments
PHC Addendum
January 18, 2007

1. General Comment.

Most of the document is cut and paste from the 2001 PHC. Very little is original. Out of a total 22 ½ pages in the document, 2 pages are cover sheets with the project title and company logo on them, 6 pages have no additions at all, 12 more pages have three sentences or less of new verbage (some of those pages contain just a few new words tacked onto the end of sentences or interjected in the middle somewhere). Only page 17, ½ of page 18, and 1/3 of page 22 stand alone as new sections; and those sections offer only a very superficial discussion.

Much of the document covers the same material as in the 2001 PHC. The document should have been devoted to the new permit expansion area. A discussion of the new area deserves more than a couple pages of new material.

2. Section 1.1.1 Groundwater, page 5, 3rd paragraph, 1st sentence.

This sentence again points out that not much thought has gone into preparing the document. Springs 16-7-24-3 and SBC-17 are not "in the permit expansion area." They are in the previous permit expansion area.

3. Section 1.1.1 Groundwater, page 6, 2nd paragraph.

The paragraph discusses 4 springs in the Panther Sandstone that occur in the old permit area. The discussion in Chapter 8 regarding the springs was centered on their relationship to the Bear Canyon Fault. Jumping from that discussion to making the broad conclusive statement that "Hence, we do not anticipate any impacts from mining activities in the .....Mohrland Federal lease area....."is not warranted.

Furthermore, the conclusion refers to Panther Sandstone springs in the Morhland Lease area. On the previous page in the 2nd paragraph, the 2nd sentence states that "No springs discharge below mining horizons in the Mohrland Federal lease and private land area." The discussion and inconsistencies need to be corrected.

4. Section 1.1.1 Groundwater, page 6, 3rd paragraph.

This paragraph and the following 2 ½ pages (except for 12 words) are entirely copied from the 2001 PHC. A flat out declaration that "impacts to Big Bear Spring or other groundwater resources in the current permit area due to mining in the permit expansion area are not expected" is not warranted from the discussion presented.

Bear Canyon Fault and the other faults in the northern part of the permit expansion area need to be brought into the discussion as they pertain to the proposed mining and future mining in that area.

5. Section 1.1.1 Groundwater, page 7, Item 1.

Item 1 expresses the notion that the Bear Canyon Fault is filled with "impermeable fault gouge" throughout and yet Big Bear Spring discharges from the fault and is a municipal water supply. The fault cannot be filled with impermeable fault gouge. The Starpoint Sandstone does not have abundant shale and mudstone to create impermeable fault gouge. Most of the major springs in the area are in the Starpoint.

Item 1 states that "where the Bear Canyon Fault is exposed near the headwaters of Bear Canyon, extensive fault gouge is visible." This would be expected in the Price River and North Horn formations near the headwaters of Bear Canyon; these two formations contain abundant shale and mudstone. The conclusions that follow in the 2nd paragraph on page 7 are not substantiated by the discussion.

The last sentence of Item 1 infers that Big Bear Spring is west of the fault system but Plate 7-4 shows the spring east of Bear Canyon Fault. The second clause of the last sentence suggests that the fractures west of the fault are supplying water to Big Bear Spring; then how will mining in the west ½ of Section 12, T16S, R7E impact the fault System?

6. Section 1.1.1 Groundwater, page 8, Item 2.

Again, a determination needs to be made whether Big Bear Spring is east or west of the fault. Plate 7-4 shows one thing and the text says the opposite.

7. Section 1.1.1 Groundwater, page 8, Item 3.

Item 3 states that because of the local dip of the strata in the area the water would naturally flow to the southeast; however, faults can transmit water across, or even opposite of, the local dip of strata, e.g., Mill Fork Graben and Little Bear Spring. The discussion needs to be expanded to address this possibility.

8. Section 1.1.1 Groundwater, page 8, Item 4, 3rd sentence.

The sentence refers to "the proposed portals for the Wild Horse Ridge expansion". Were the portals built or are they still just proposed? References such as this need to be corrected or deleted throughout the document.

9. Section 1.1.1 Groundwater, page 8, Item 4.

The part of Item 4 on page 8 uses chemical data to explain how there is "no hydraulic communication between the area east and the area west of the Bear canyon Fault." The springs east of the fault are in the Blackhawk Formation while Big Bear Spring issues from the Panther Sandstone. The closest spring to Big Bear Spring (SBC-14) is more than a mile away and , approximately 300 feet higher in elevation and in a different formation. Also, it is common for Blackhawk springs to be higher in sulfate concentration. It is possible that water from the mined out area above SBC-14 is leaking into that spring and mixing with it. The statement that "there is no hydraulic communication" east and west of the fault seems to broad.

10. Section 1.1.1 Groundwater, page 9, Item 4, 3rd paragraph.

The statement that "historic inflows as great as 100 gpm were reported when the Bear Canyon Fault was intercepted' needs to be supported with data showing where in the stratigraphic sequence the fault was contacted. The fault would probably produce much less water in the Blackhawk Formation than in the Starpoint.